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ABSTRACT

No-deadline sections of a personalized child development course and sections that had deadlines were compared in regard to proctor workload, proctor grading accuracy, and pressure on proctors. A total of 167 students in four sections of the course, and five proctors and one instructor per section, participated in the study. Students in the no-deadline condition had only to attempt the first unit quiz by the end of the second week of the semester and complete the course by the end of the semester. Students in the deadline condition had to meet five instructor-set deadlines that evenly distributed course work throughout the semester. Results indicated that proctor workload was greater towards the end of the semester in the no-deadline condition, that the rate at which no-deadline students completed course tasks accelerated during the last five class days, and that there were more grading errors in the no-deadline condition as the end of the semester approached. Proctors perceived more pressure on both themselves and their students at the end of the semester in the no-deadline condition. The use of deadlines is discussed as a way to distribute proctor workload across the term and to alleviate end-of-term pressure. A bibliography is appended. (Author/SW)

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Effects of Deadlines on Proctors in a Personalized Psychology Course

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Effects of Deadlines on Proctors in a

Personalized Psychology Course

Abstract

This study analyzed proctor workload and grading accuracy in deadline and no deadline sections of a personalized child psychology course. Students in the No Deadline Condition had only to complete the course by the end of the semester, while students in the Deadline Condition had to meet five instructor-set deadlines which evenly distributed course work throughout the semester. Proctor workloads were greater towards the end of the semester in the No Deadline Condition, and the rate at which No Deadline students completed course tasks accelerated during the last five class days. Furthermore, there were more quiz grading errors in the No Deadline Condition as the end of the semester approached. Finally, proctors perceived more pressure on both their students and themselves at the end of the semester in the No Deadline Condition. The use of deadlines is discussed as a way to distribute proctor workload across the term and to alleviate end-of-term pressure.

Effects of Deadlines on Proctorsin a

Personalized Psychology Course

Introduction

One defining characteristic of Keller's (1968) Personalized System of Instruction (PSI) is the go-at-your-own-pace feature which permits students to progress through a course at a pace consistent with their available time and ability. Deadlines for completing course work may restrict some students by limiting their pacing flexibility (Glick & Semb, 1978a). However, because most courses are designed to be completed within an academic term (i.e., a quarter or a semester), many instructors use deadlines to encourage students to maintain a minimum rate of progress and thus complete the course within the term.

One of the most compelling reasons to use deadlines is to avoid the possibility of logistical problems at the end of the term. The potential for such problems has been suggested in several studies (Glick & Semb, 1978a; Glick & Semb, 1978b; Powers, Edwards & Hoehle, 1973; and Semb, Conyers, Spencer & Sanchez-Sosa, 1975), in which dramatic increases in response rates have occurred among some students at the end of the term. However, as Glick (1978) has noted, data on end-of-term workload, grading accuracy, and the quality of student-proctor interactions are lacking. Therefore, the present study was designed to compare no deadline sections of a personalized psychology course with sections which had deadlines. Dependent measures included proctor workloads, proctors' ratings of the classroom atmosphere, pressure to compromise grading standards, and proctor grading accuracy. Proctors were the

focal point of the present study because they interact most often and intensively with the student.

Method

Subjects, Setting and Course Personnel

Students (N=167) in four sections of an introductory child psychology course participated in the study. Each section met for fifty minutes three days a week (MWF) throughout the 14-week term. One instructor and five proctors managed each section.

General Course Format

The course was divided into three major content parts and each part was subdivided into four units and a review exam. A typical unit assignment consisted of 30 pages from the course text (Lefrancois, 1977) and 25 short-essay questions and 20 objective exercises from the course study guide (Semb, 1977).

Unit quizzes consisted of six-to-eight one-point multiple choice items and one-to-three two-point short-essay items sampled from a pool of approximately 40 items per unit. Students were required to master the unit quizzes with 100% accuracy in order to progress in the course. Quizzes were graded by the proctors, and as long as students initially scored eight of the 10 points possible, they were allowed to correct their errors in writing, thus satisfying the 100% mastery criterion. If they initially scored less than eight out of 10 correct, they were required to take an alternate form of the quiz.

Review exams consisted of 24 multiple-choice items (six from each unit) selected from the total pool of items covered by the exam. Review

exams, which could be retaken once, had to be attempted for the second time within two days of the initial attempt. The highest score earned counted toward the student's grade in the course. Review exams were graded in class by the instructor, and students received immediate feedback about their performance on them. Each of the 24 items on the review exam was worth two points, and grades were assigned as follows: 42-48=A; 37-41=B; 32-36=C; 27-31=D; 0-26=F.

Students took a comprehensive 60-item multiple-choice final exam after the third review exam. The final could be retaken once, and the higher of the two scores counted toward the student's grade in the course. Each item on the final was worth 1.5 points, and grades were assigned as follows: 81-90=A; 71-80=B; 61-70=C; 51-60=D; 0-50=F.

Unit quizzes accounted for 33% of the course grade, review exams 42% and the final 25%.

Experimental Design

The 83 students and 10 proctors who enrolled in the course at 8:30 A.M. Monday-Wednesday-Friday were randomly divided into two groups of 41 students and five proctors and 42 students and five proctors. The 84 students and 10 proctors at 9:30 A.M. MWF were randomly divided into groups of 42 students and five proctors each.

Students in the 8:30 and 9:30 Deadline Condition could pace themselves through the course provided their rate of progress was no slower than that specified by the five instructor-set deadlines. Students had to attempt Unit 1 for the first time by Day 4, master Unit 2 by Day 7, master Unit 5 by Day 17, attempt Review Exam II by Day 26 and attempt Review Exam III by Day 39. If students missed deadlines, they entered

daily testing which stipulated that they had to come to class every day until they completed the task which carried the deadline. A unit quiz was considered complete when it had been mastered and a review exam when it had been taken for the second time, or two days had elapsed since the original attempt. Failure to comply with the daily testing procedure resulted in an F in the course (a grade of W was available during the first seven weeks of the semester).

Students in the 8:30 and 9:30 No Deadline Condition had to attempt the first unit quiz no later than Day 4. This deadline was implemented to verify their enrollment in the course; it could be as trivial as students' reporting to class to sign their name on the top of the quiz sheet. Students in the No Deadline Condition also had to attempt the third review exam no later than Day 39. For the purposes of the present study, Day 39 defined the end of the course, although students still had two days to retake the third review exam and to take the final. Students who missed either deadline experienced the daily testing procedure described for the Deadline Condition. Other than these two deadlines, students were free to pace themselves through the course.

Proctors in both the Deadline and No Deadline Conditions completed a questionnaire consisting of three items (see Table 1) at the end of class on Days 22, 25, 28, 30, 33, 35, 36, 37, 38 and 39.

Insert Table 1 here

TABLE 1

QUESTIONNAIRE ITEMS

ITEM 1	STUDENTS SEEMED RELAXED	1	2	3	4	5	6	7	STUDENTS SEEMED UPTIGHT
ITEM 2	NEVER FELT I HAD TO COMPROMISE GRADING STANDARDS	1	2	3	4	5	6	7	FELT I HAD TO COMPROMISE GRADING STANDARDS
ITEM 3	FELT NO MORE PRESSURE THAN USUAL	1	2	3	4	5	6	7	FELT MORE PRESSURE THAN USUAL

Days 22, 25, 28, 30 and 33 represented the end of the week while Days 35, 36, 37, 38 and 39 were the last five days of the semester, including the deadline for the third review exam, Day 39.

Proctor Grading Accuracy

An assistant collected a random sample of 20% of the unit quizzes graded on each day the questionnnaire was administered. Review exams were not included in this analysis because they involved exclusively multiple-choice items. Only short essay items on the unit quizzes were regraded. To help avoid grader bias, the assistant removed the proctors' scores before regrading the items. An agreement was defined as assitant-proctor combinations of 2-2, 1-1 and 0-0. Any discrepancy between the graders was defined as a disagreement. Grading accuracy was calculated by dividing the number of agreements by the number of agreements plus disagreements.

Results

Course Completion and Withdrawals

The number and percentage of students who completed and withdrew from the course are presented in Table 2.

Insert Table 2 here

The percentage of course completers was higher in the Deadline Condition. However, the difference in completion and withdrawal frequencies was not statistically significant ($\chi^2 = 2.47$, df = 1, NS).

TABLE 2

INITIAL COURSE ENROLLMENTS, COMPLETIONS AND WITHDRAWALS

DEADLINES (EXPERIMENTAL)	83	72 (87%)	11 (13%)
NO DEADLINES (CONTROL)	84	65 (77%)	19 (23%)

$\chi^2 = 2.47$, DF = 1, NS

The median student who withdrew from the Deadline Condition did so during the third unit while the median student in the No Deadline Condition had completed the second unit.

The remainder of the analyses are based on students who completed the course.

Proctor workload

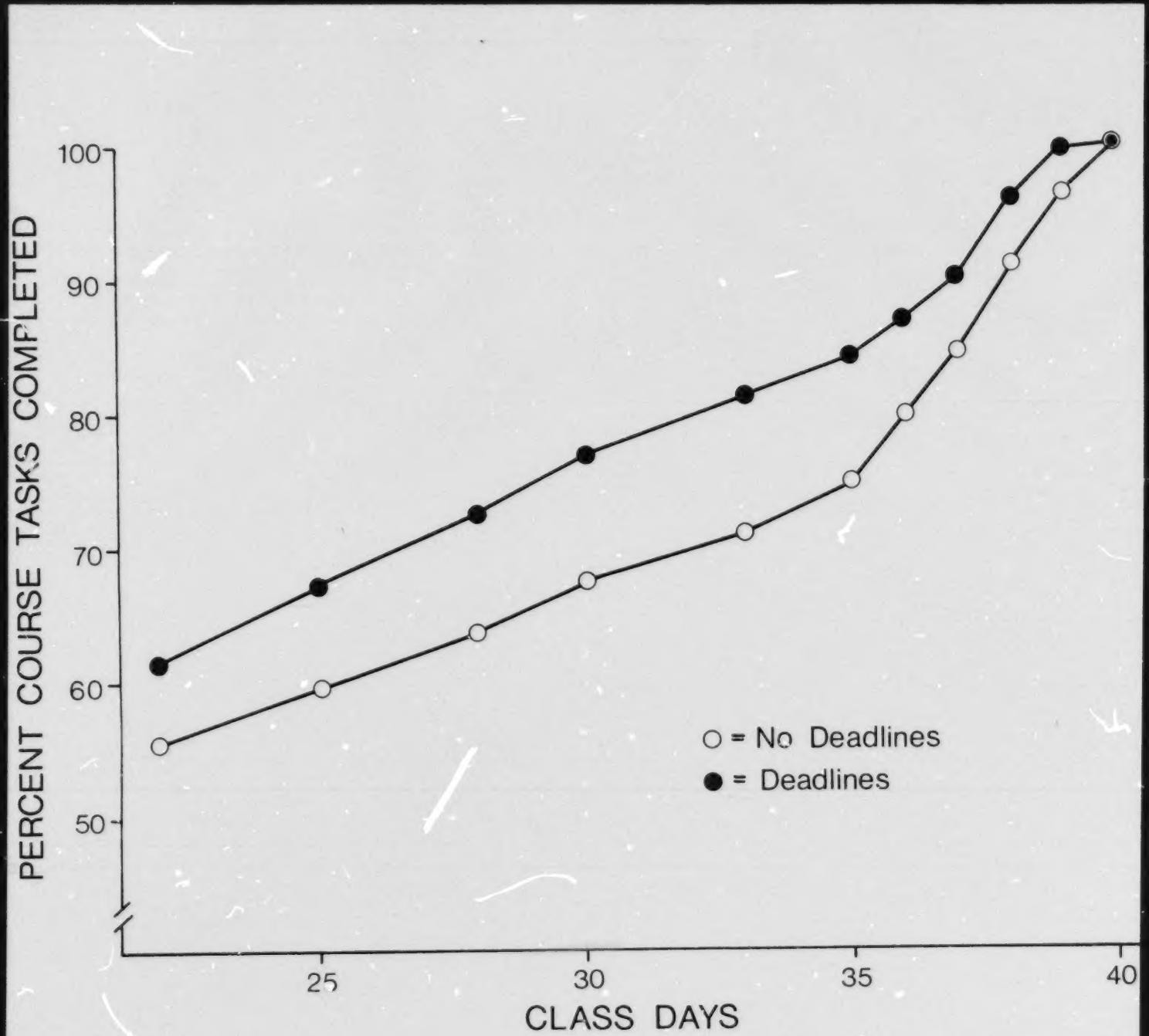
Proctor workload was determined by computing the percentage of course tasks (unit quizzes and review exams) that had been completed on each of the days proctors answered the questionnaire. For example, on Day 30 students in the No Deadline Condition had completed a total of 699 of the 1040 (67.2%) course tasks. The percent of course tasks completed are plotted cummulatively for both conditions in Figure 1.

Insert Figure 1 here

Students in the Deadline Condition had consistently fewer tasks remaining as the semester drew to a close. Furthermore, students in the No Deadline Condition accelerated the rate at which they completed course tasks during the last five days of the semester.

Proctor Ratings

Data from the three proctor evaluation items are shown in Table 3 which presents the percent of proctors who reported extreme responses


PERCENT COURSE TASKS COMPLETED
100
90
80
70
60
50
25
30
35
40
CLASS DAYS
○ = No Deadlines
● = Deadlines

(that is, ratings of 1 or 2).

Insert Table 3 here

Data from items which assessed student and proctor pressure are presented in Figures 2 and 3.

Insert Figures 2 and 3 here

Results from both Table 3 and Figures 2 and 3 indicate that proctors' perceptions of student and proctor pressure increased appreciably as the end of the semester approached.

Results from the item which assessed compromises in grading standards (Table 3) revealed no consistent between-group differences.

Proctor Grading Accuracy

Proctor grading accuracies are presented in Table 4.

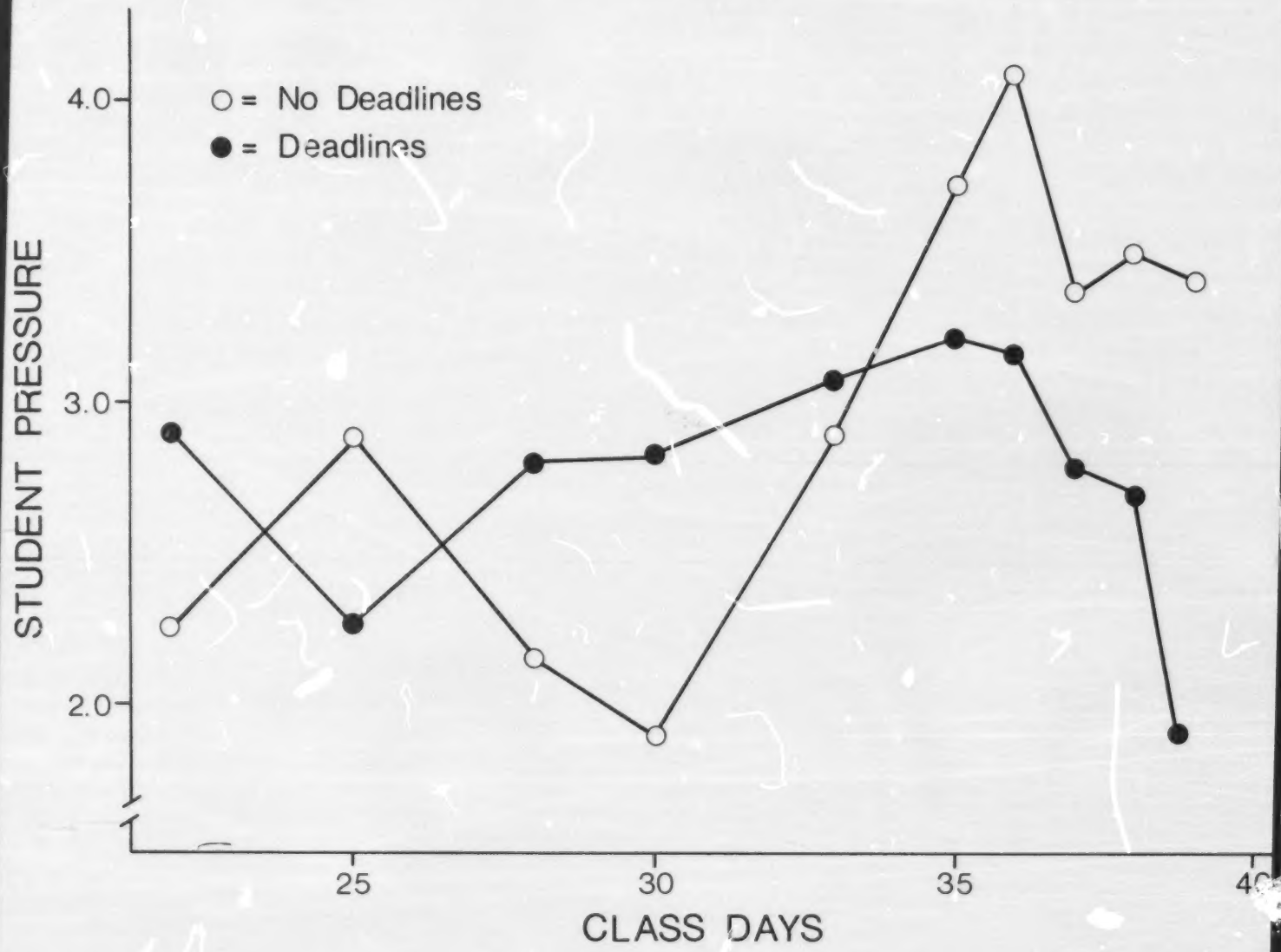
Insert Table 4 here

Grading accuracies declined in both conditions as the end of the semester approached. However, the decline was much more pronounced in

TABLE 3

PERCENT OF PROCTORS WHO REPORTED
EXTREME (1 OR 2) EVALUATION SCORES

	Item 1 (STUDENT PRESSURE)		Item 2 (GRADING COMPROMISE)		Item 3 (PROCTOR PRESSURE)	
Day	Deadline	No Deadline	Deadline	No Deadline	Deadline	No Deadline
22	0	0	0	18	8	9
25	12	18	0	0	9	0
28	9	0	9	0	9	8
30	7	0	0	0	0	0
33	9	30	0	0	0	10
35	20	27	0	0	20	9
36	20	36	0	10	10	33
37	20	18	10	9	9	33
38	9	25	10	10	10	25
39	0	25	0	14	0	18


○ = No Deadlines
● = Deadlines
4.0
3.0
2.0
STUDENT PRESSURE
25
30
35
CLASS DAYS

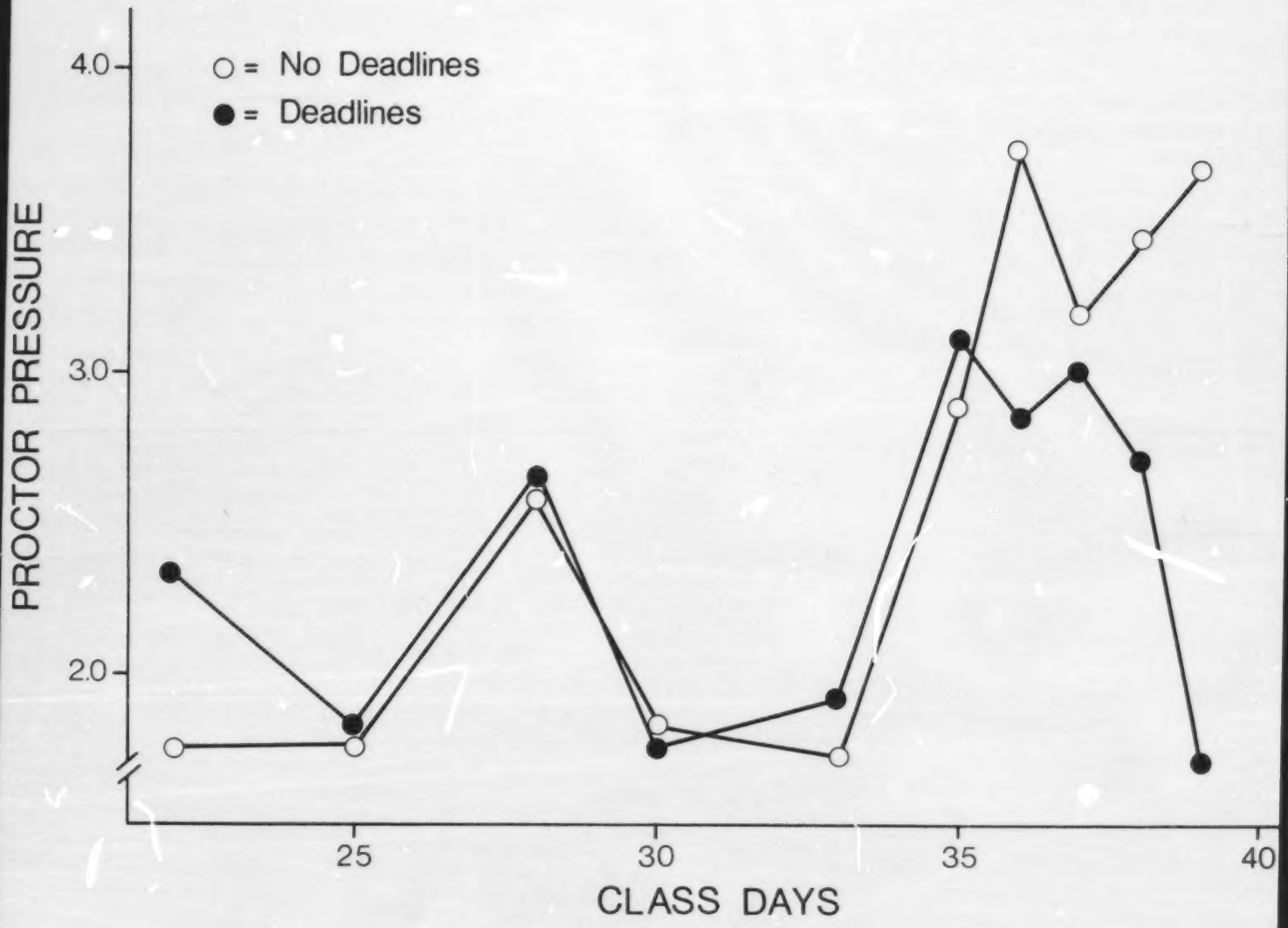

○ = No Deadlines
● = Deadlines
4.0
3.0
2.0
PROCTOR PRESSURE
25
30
35
40
CLASS DAYS

TABLE 4

PROCTOR GRADING ACCURACY

DAY	DEADLINE	NO DEADLINE
22	0.92	0.88
25	0.87	0.91
28	0.93	0.92
30	0.91	0.87
33	0.93	0.88
35	0.89	0.84
36	0.85	0.83
37	0.87	0.77
38	0.89	0.81
39	0.94	0.87

the No Deadline Condition.

Discussion

The results suggest that proctor workload, student pressure, pressure on proctors and grading leniency increased as the semester drew to a close more in the absence of deadlines than when deadlines were interspersed uniformly throughout. While the number and spacing of deadlines for optimal student and proctor performance awaits further empirical analysis, it seems clear that without deadlines unnecessary pressure builds during the last few days of the semester. This contention is based on an analysis of proctor workload (Figure 1), proctor perceptions of pressure (Table 3; Figures 2 and 3), and proctor grading accuracy (Table 4).

Extreme ratings of proctor and student pressure in the No Deadline Condition increased toward the end of the semester. This suggests not only that individual proctors experienced a larger proportion of extreme cases, but also that something is needed to attenuate end-of-semester pressure put on both student and proctors.

There are several reasons why the item that measured compromises in grading standards may have failed to discriminate between the Deadline and No Deadline Conditions. It may well be that proctors did not feel any pressure to compromise grading standards. But this is hard to explain given their perceptions of increased pressure and the decline in grading accuracy in the No Deadline Condition. It may be that the item was insensitive. Alternately, it may be that proctors were unwilling to admit on a signed questionnaire that they had felt pressure to modify

their grading standards, particularly since they knew that part of their grade for proctoring would be determined by how accurately they scored unit quizzes.

The use of deadlines in the present study appeared to have alleviated the pressures and increased workload produced by the No Deadline Condition. The deadlines distributed proctor workload relatively uniformly over the last six weeks of the semester thus obviating the accelerated rate of work in the No Deadline Condition as the semester drew to a close. While deadlines might not be the only or the best answer to the pacing problem, they are certainly easy to implement and enforce. Furthermore, they help many students to keep responding, students who otherwise might withdraw from or not have enough time to complete the instructional sequence. Finally, the reduced level of pressure perceived by the proctors in the Deadline Condition argues strongly for some method to help keep end of semester problems at a minimum.

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